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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/826,915
Filing Date: April 06, 2001
Appellant(s): ITANI, NORIKO

David E. Moore
Reg. No. 59,047
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 17 April 2008 appealing from the Office action mailed 16 July 2007.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is incorrect. A correct statement of the status of the claims is as follows:

Claims 1-27 are currently pending. Claims 1-27 stand twice rejected and are being appealed.

Claim 19 is amended by the amendment filed 17 April 2008.

Claims 28-39 are cancelled by the amendment filed 17 April 2008.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

It is noted however that the Summary of Claimed Subject Matter fails to disclose the summary for all independent claims. For example, the summary of independent claim 13 addresses the limitations of independent claim 4, without specifying how the limitations are related to claim 13. Similarly, with respect to independent claim 14, the appellant initially addresses the limitations of independent claim 1.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6635088	Hind et al.	10-2003
7043686	Maruyama et al.	5-2006
5999929	Goodman	12-1999

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 11-27 remain and claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hind et al. (US 6635088, filed 20 November 1998, hereafter Hind), and further in view of Maruyama et al. (US 7043686, filed 26 September 2000, hereafter Maruyama).

As per independent claim 1, Hind discloses an apparatus for compressing a plurality of structured documents having a common data structure, the apparatus comprising:

- A tag list obtaining unit for obtaining a single tag list, common to the plurality of structured documents, that lists start markup tags and end markup tags in the order that they appear in the structured documents (column 4, lines 19-41: Here, the tag list is obtained by storing the correspondence between the substituted tags and the unique short tags substituted for the tags; column 13, lines 20-48)
- A structured document compressing unit for, by replacing each of the start markup tags and end markup tags in individual said plural structured documents that correspond to the tag list in the plural structured documents with a single predetermined delimiter code, generating a plurality of compressed documents comprising element contents and predetermined delimiter codes (column 4, lines 19-41: Here, the unique short tags are substituted for the plurality of start and end markup tags)

Hind fails to specifically disclose outputting the single tag list, which is obtained by the tag list obtaining unit, and also the plurality of compressed documents, which are generated individually from the plural structured documents by the structured document compressing unit, in correspondence with one another. Hind further discloses the ability to display items via a computer terminal (column 5, lines 45-64), and displaying the compressed files, causing the files to be decompressed via the single tag list (column 13, lines 49-65). However, it would have been obvious to one of ordinary skill in the art

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at the time of the applicant's invention to have combined capability to display files with Hind's teachings of compression, since it would have allowed a user to easily view compressed text files on handheld devices with a small memory store (Hind: column 3, lines 1-23).

Further, Hind fails to specifically disclose extracting a common data structure. However, Maruyama discloses extracting a data structure (Figures 5-6). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined Maruyama with Hind, since it would have allowed a user to compress data having a common grammar (Maruyama: column 2, lines 5-18).

As per dependent claim 2, Hind discloses wherein the structured document compressing unit further comprises:

- A tag detecting unit for detecting each start markup tag and end markup tag in individual structured documents (column 4, lines 19-41)
- A tag replacement unit for replacing each start markup tag and end markup tag, detected by the tag detecting unit, with the predetermined delimiter code (column 4, lines 19-41)

As per independent claim 3, Hind discloses an apparatus for compressing a structured document, the apparatus comprising:

- A tag detecting unit for detecting each start markup tag and end markup tag in individual structured document (column 4, lines 19-41)
- A tag replacement unit for replacing the start markup tags and end markup tags detected by the tag detection unit, with a predetermined delimiter code, to

translate the structured document into a compressed document consisted of element contents and predetermined delimiter codes (column 4, lines 19-41)

As per dependent claim 5, Hind discloses a compressing apparatus further comprising:

- An attribute-bearing-tag discriminating unit for discriminating whether or not the markup tag detected by the tag detecting unit is an attribute-bearing markup tag, which has an attribute value (column 13, lines 20-48)
- An attribute-bearing-tag replacement unit for replacing the attribute-bearing markup tag, discriminated by the attribute-bearing-tag discriminating unit, with a set of the attribute value and a single predetermined delimiter code (column 13, lines 20-48)

Hind fails to specifically disclose extracting a common data structure. However, Maruyama discloses extracting a data structure (Figures 5-6). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined Maruyama with Hind, since it would have allowed a user to compress data having a common grammar (Maruyama: column 2, lines 5-18).

As per independent claim 4, Hind discloses an apparatus for compressing a structured document, the apparatus comprising:

- A subdocument extracting unit for extracting a subdocument, which is a region sandwiched between a start markup tag and an end markup tag that have a predetermined element name, from the structured document (Figures 3A-3B:

Here, the subdocument "1234 Cornwallis Drive, Research Triangle Park, NC 27709" is extracted from the document)

In another embodiment, Hind discloses the limitations substantially similar to those in claim 3. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined Hind's teaching of extracting subdocuments to compress documents with Hind's teachings of claim 3, since it would have allowed a user to easily view compressed text files on handheld devices with a small memory store (Hind: column 3, lines 1-23).

Further, Hind fails to specifically disclose extracting a common data structure. However, Maruyama discloses extracting a data structure (Figures 5-6). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined Maruyama with Hind, since it would have allowed a user to compress data having a common grammar (Maruyama: column 2, lines 5-18).

As per dependent claim 5, Hind and Maruyama disclose the limitations similar to those in claim 3. Hind further discloses a compressing apparatus further comprising:

- An attribute-bearing-tag discriminating unit discriminating whether or not the markup tag detected by the tag detecting unit is an attribute-bearing markup tag, which has an attribute value (column 13, lines 20-48)
- An attribute-bearing-tag replacement unit for replacing the attribute-bearing markup tag, discriminated by the attribute-bearing-tag discriminating unit, with a set of the attribute value and a single predetermined delimiter code (column 13, lines 20-48)

As per dependent claim 6, the applicant discloses the limitations substantially similar to those in claim 5. Claim 6 is similarly rejected.

As per independent claims 11 and 14, the applicant discloses the limitations substantially similar to those in claim 1. Claims 11 and 14 are similarly rejected.

As per independent claims 12 and 15, the applicant discloses the limitations substantially similar to those in claim 3. Claims 12 and 15 are similarly rejected.

As per independent claims 13 and 16, the applicant discloses the limitations substantially similar to those in claim 4. Claims 13 and 16 are similarly rejected.

As per independent claim 17, Hind discloses an apparatus for decompressing a plurality of compressed documents, which are generated by replacing each of start markup tags and end markup tags in a plurality of original structured documents having a common data structure within a single predetermined delimiter code and which comprise element contents and predetermined delimiter codes, on the basis of a tag list in which start markup tags and end markup tags in the plural original structured documents are listed in the order of appearance, the apparatus comprising:

- A duplicating unit for expanding/duplicating a data structure corresponding to the tag list, as a duplicated data structure, on a memory (column 4, lines 19-41; column 13, lines 20-65)
- A writing unit for writing element contents of each of the compressed documents into predetermined regions of the duplicated data structure extended on the memory, in accordance with a correspondence between a position of a start markup tag or an end markup tag in the duplicated data structure and a position

of the predetermined delimiter code in each of the compressed documents
(column 4, lines 19-41; column 13, lines 20-65)

Hind fails to specifically disclose extracting a common data structure. However, Maruyama discloses extracting a data structure (Figures 5-6). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined Maruyama with Hind, since it would have allowed a user to compress data having a common grammar (Maruyama: column 2, lines 5-18).

As per independent claim 18, Hind discloses an apparatus for decompressing a compressed document, which are generated by replacing each of start markup tags and end markup tags in a plurality of original structured documents having a common data structure within a single predetermined delimiter code and which comprise element contents and predetermined delimiter codes, on the basis of a tag list in which start markup tags and end markup tags in the plural original structured documents are listed in the order of appearance, the apparatus comprising:

- A tag list holding unit for holding a tag list in which markup tags in the structured document are listed in the order of appearance (column 4, lines 19-41)
- A delimiter code detecting unit for detecting each of the predetermined delimiter codes in the compressed document (column 4, lines 19-41; column 13, lines 20-65)
- A tag restoring unit for replacing the predetermined delimiter code, detected by the delimiter code detecting unit, with a corresponding markup tag on the tag list, in accordance with a correspondence between a position of the markup tag in the

tag list and a position of the predetermined delimiter code detected by the delimiter code detecting unit (column 4, lines 19-41; column 13, lines 20-65)

Hind fails to specifically disclose extracting a common data structure. However, Maruyama discloses extracting a data structure (Figures 5-6). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined Maruyama with Hind, since it would have allowed a user to compress data having a common grammar (Maruyama: column 2, lines 5-18).

As per independent claim 19, Hind discloses an apparatus for decompressing a compressed document, which are generated by replacing each of start markup tags and end markup tags in a plurality of original structured documents having a common data structure within a single predetermined delimiter code and which comprise element contents and predetermined delimiter codes, on the basis of a tag list in which start markup tags and end markup tags in the plural original structured documents are listed in the order of appearance, the apparatus comprising:

- A tag list holding unit for holding a tag list in which markup tags in the structured document are listed in the order of appearance (column 4, lines 19-41)
- A subdocument extracting unit for extracting the subdocument from the compressed document (Figures 3A-3B)
- A delimiter code detecting unit for detecting each of the predetermined delimiter codes in the compressed document (column 4, lines 19-41; column 13, lines 20-65)

- A tag restoring unit for replacing the predetermined delimiter code, detected by the delimiter code detecting unit, with a corresponding markup tag on the tag list, in accordance with a correspondence between a position of the markup tag in the tag list and a position of the predetermined delimiter code detected by the delimiter code detecting unit (column 4, lines 19-41; column 13, lines 20-65)

Hind fails to specifically disclose extracting a common data structure. However, Maruyama discloses extracting a data structure (Figures 5-6). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined Maruyama with Hind, since it would have allowed a user to compress data having a common grammar (Maruyama: column 2, lines 5-18).

As per dependent claim 20, the applicant discloses the limitations of the claim directed to an apparatus that operates in reverse of the apparatus of claim 5, and is rejected under similar rationale in the manner of claim 17.

As per dependent claim 21, the applicant discloses the limitations substantially similar to those in claim 20. Claim 21 is similarly rejected.

As per independent claims 22 and 25, the applicant discloses the limitations substantially similar to those in claim 17. Claims 22 and 25 are similarly rejected.

As per independent claims 23 and 26, the applicant discloses the limitations substantially similar to those in claim 18. Claims 23 and 28 are similarly rejected.

As per independent claims 24 and 27, the applicant discloses the limitations substantially similar to those in claim 19. Claims 24 and 27 are similarly rejected.

Claims 7-10 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Hind and Maruyama and further in view of Motoyama et al. (US 5504891, filed 13 June 1994, hereafter Motoyama) and further in view of Goodman (US 5999929, filed 29 September 1997).

As per dependent claim 7, Hind discloses the limitations similar to those in claim 3, and the same rejection is incorporated herein. Hind fails to specifically disclose an apparatus further comprising:

- A tag list holding unit for holding a tag list in which tags are listed in a predetermined order for definition of a predetermined data structured
- A tag rearranging unit for rearranging tags in said structured document before compression, in the predetermined order according to the tag list held in said tag list holding unit

However, Motoyama discloses in col. 18, lines 10-35 the use of a list to hold and rearrange a list of tags. It would have been obvious to one of ordinary skill in the art at the time of the invention to have used a list to hold and rearrange tags because this would have permitted a user to have greater flexibility in the storage order of tags.

Hind further fails to disclose an omitted-tag supplementing unit for supplementing a tag omitted in said structured document according to said tag list held in said tag list holding unit. However, Goodman discloses in col. 4, lines 25-60 facilities for providing missing tags in structured documents in order to allow successful display in Web browsers. It would have been obvious to one of ordinary skill in the art at the time of the

invention to provide Goodman's feature of supplementing missing tags since it would have allowed a user to successfully validate pages for display in Web browsers.

As per dependent claims 8-10, the applicant discloses the limitations substantially similar to those in claim 7. Claims 8-10 are similarly rejected.

(10) Response to Argument

The appellant's initial argument is based upon the rejection of claims 1-6 and 11-27 under Hind in view of Maruyama. The appellant's initial argument is based upon claim 1 obtaining and storing a single tag list as opposed to obtaining and storing a plurality of tag lists (pages 17-18). The appellant correctly states that Hind "generates short names ("short tags") for original tag names ("located tags") appearing in a document file (page 17). It is important to note that the short names are generated, as opposed to be obtained, or read from a common data structure. Claim 1 discloses, "a tag list obtaining unit obtaining only one tag list, common to said plural structured document, that lists start markup tags and end markup tags in the order that they appear in the structured document, by removing element content from the common data structure (lines 3-5)." It is clear from the claim language that the obtained tag list is obtained by removing elements from the common data structure. Hind discloses located tags, which appear in the common data structure (document file) (column 4, lines 19-41). These located tags comprise the only tags which are obtained by a tag list obtaining unit. Conversely, as the appellant points out, the short names are generated. Therefore, while Hind may disclose both a short tag list and a located tag list, the

appellant's claims merely limit the number of located tag lists. Therefore, this argument is not persuasive.

The appellant further argues that Hind fails to disclose replacing all tags in the plural structured documents with a single predetermined delimiter code (page 18). Again, the examiner respectfully disagrees. Hind discloses replacing each located tag with a corresponding short tag (column 4, lines 19-41). Further, each tag having the same name is replaced with the same short tag (Figures 5A-5B). Here, each located <Order> tag is replace with the short tag <A>. Therefore, all common tags within the structured documents are replaced with a single common predetermined delimiter code. In an instance where the document was comprised of all <Order> tags, all tags within the plural structured documents would be replaced with the single predetermined delimiter code <A>. Therefore, in this situation, Hind discloses substitution of all tags in the plural structured documents being replaced with a single predetermined delimiter code.

The appellant's final argument with respect to independent claim 1, is that Maruyama fails to produce a single list of tags or perform substitution without relationship mapping (page 18). However, it is noted that Maruyama is not relied upon for such teachings, and the argument is therefore not persuasive.

With respect to claims 4, 11-19, and 22-27, the appellant argues that each recites, "replacing each ... start markup tags and end markup tags ... with a single predetermined delimiter code (page 18)." The appellant then relies upon the arguments presented with respect to independent claim 1. However, the examiner wishes to note

that the claim language of claims 4, 11-19, and 22-27 is fundamentally broader than the language of claim 1. The claims of this group do not require replacement with a single predetermined delimiter code, as required by claim 1. Instead, it is only required that each start markup tag and end markup tag are replaced by a single predetermined delimiter code (claim 4, lines 7-8). Hind discloses that each start tag and each end tag are replaced by a single predetermined delimiter code (Figures 5A-5B). In Figure 5A, the start tag <Order> is replaced by the short tag <A>, while the start tag <Order_Nbr> is replaced by the short tag . This is disclosed for each starting and ending tag within the document, with each start and end tag being replaced by a single corresponding short tag. Therefore, this argument is not persuasive.

The appellant further states that independent claim 3 discloses, “replacing said start markup tags and end markup tags ... with a single predetermined delimiter code (page 19).” Again, the applicant relies upon the arguments presented with respect to independent claim 1. However, the claim language of independent claim 3 is broader than that of independent claim 1. Similar to the group of claims including claim 4, claim 3 does not require replacement with a single predetermined delimiter code, as required by claim 1. Instead, it is only required that each start markup tag and end markup tag are replaced by a single predetermined delimiter code (claim 3, lines 5-6). Hind discloses that each start tag and each end tag are replaced by a single predetermined delimiter code (Figures 5A-5B). In Figure 5A, the start tag <Order> is replaced by the short tag <A>, while the start tag <Order_Nbr> is replaced by the short tag . This is disclosed for each starting and ending tag within the document, with each start and end

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tag being replaced by a single corresponding short tag. Therefore, this argument is not persuasive.

The appellant's final argument is based upon the rejection of claims 7-10. With respect to claims 7-10, the appellant relies upon the arguments presented with respect to claim 3. As the examiner has previously noted, the arguments with respect to claim 3 are not persuasive. Therefore, the arguments with respect to claims 7-10 are not persuasive.

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(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

hrs

Kyle R. Stork

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